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35. (NEW) A method in accordance with claim 34, wherein the device with a local audio source and the packet forwarding device and memory are part of a network telephone device and the first collision domain is in one of a local area network, wide area network and internet protocol network and the second collision domain is a connected computer device.

36. (NEW) A method in accordance with claim 34, wherein said audio packet contains time sensitive audio data and no time limit or a different time limit is established for packets received from one of said first collision domain and said second collision domain than for packets received with audio data.

REMARKS

Claims 1, 3 to 13, 15, 17 to 23, 25 to 27, 29 to 31 and 34 to 36 are in the case and are presented for consideration. By this amendment, applicant has revised independent claims 1 and 31 and added new claims 34 to 36. Claims 15, 17 to 23, 27 and 29 have been allowed. It is noted that claim 26 is still pending and claim 26 also appears to be in condition for allowance.

The Examiner has taken the position that the title of the invention is not descriptive. The Examiner takes a position that a more descriptive title is: "Telecommunication Apparatus and Method Having Packet Forwarding Time Limits." However, it is Applicant's position that this is not a fully accurate and descriptive title. Further, it is believed that the original title

more correctly highlights the important Characteristics of the invention. Specifically, a key feature of the invention is to provide a method to ensure on – time delivery of packets which contain time – sensitive data. As late delivery of audio may not be acceptable, both for quality of service issues and for other reasons, an important feature of this is to treat packets differently, depending upon the content of the packet, namely depending upon the type of data present. In effect the invention provides a priority level or a categorization of packets with the main category relating to time sensitive data packets, namely audio packets and most particularly audio packets with local audio data content.

The invention is particularly useful in the situation with a system using a network telephone device which produces (or receives from a local source) audio signals and then forms packets including local audio data. The network telephone device can be for example connected to a network (local area network, IP router network – Internet, wide area network, etc.) and may also connect a network device (or other network) to the network through the telephone device. In such a situation there is network traffic passing through the telephone device to the network device and there is traffic passing in the other direction. There additionally are also audio packets which must be transferred to the connected network or to the connected network device. The invention ensures on – time delivery of packets containing local audio data by the method of the invention including establishing a time limit to forward packets to the network. The time limit is linked to the content of the data and includes the use of a time limit for packets with local audio data. The method cancels the attempt to forward the packet when the elapsed period of time exceeds the time limit associated with the content

of the data. As ensuring on-time delivery and providing this through the cancellation of the forwarding of time-sensitive packets is significant to the invention, the title as now presented is more descriptive than the alternative title suggested by the Examiner. The packet forwarding time limit is a less significant aspect of the invention. The more descriptive feature relates to ensuring on-time delivery of packets which are time sensitive. Accordingly, reconsideration of the objection to the title as being not descriptive is requested.

The Examiner has rejected claims 1,4,7, 12, 25, 30 and 32 to 33 as being anticipated by Chuah. Applicant has now clarified claim 1 to highlight the important features of the invention. It is Applicant's position that the Chuah reference fails to teach and fails to suggest a combination of features as is claimed.

The Chuah reference is concerned with a wireless system with a wireless node which maintains a packet queue and a head - of - line tag. If a packet is lost, the head-of-line tag is changed. Once the head - of - line tagged packet has been transmitted, the rest of the queued packets receive a correct tag, the recomputed head - of - line tag plus appropriate increments. The method of Chuah has in-sequence delivery requirements (column 18, lines 61 to 65). The reference deals with a problem that a reassembly of the data must occur in a certain order. Stations outside of a time delay reach have the problem that the protocol breaks down. Chuah deals with the problem that the reassembling cannot be done with two different things simultaneously. Chuah deals with fragmentation issues and particularly reassembly issues.

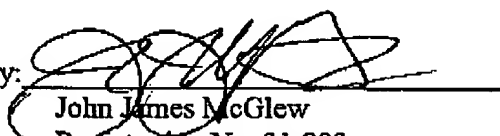
The Chuah reference fails to provide any teaching or suggestion of setting a time limit priority, particularly a time limit status which is linked to the data included in the particular

packet to be forwarded.

The invention provides its method of ensuring on-time delivery of packets containing time sensitive data by providing a time limit based on the content of the packet. In accordance with the invention the packet may have an implicit tag for considering the content of the data of the packet, where the system knows the content of the packet and therefore knows the priority of the packet. The system can be based on explicit tagging in which a packet is tagged to indicate the data content of the packet. In either case, the time limit, if any is set based on the data content. The method provides a time limit for time-sensitive data, particularly local audio data. Particularly where the data is local audio, and therefore time sensitive, the packet forwarding is canceled when an elapsed period time for forwarding exceeds the time limit which is associated with the data content. With the method of the invention, when the packet in memory includes data which is not time sensitive, the time period is set to be much longer than for time sensitive data or no time period may be set. For example, the situation with an Internet protocol network where the data includes an ARP request (address resolutions protocol) to figure out what MAC address should be used. In this case the packet with the ARP request is not time sensitive. As such, the time limit may be infinite or no time limit may be set or it may be a long duration. In the same method where the packet includes audio data that is time sensitive, a shorter time period is set. In this way the invention provides a priority as to limiting the duration for forwarding from memory based on the data content of the packets.

Accordingly, Applicant requests that the Examiner reconsider the rejection of the claims in view of the revised claims and new claims submitted herewith. Further, should the Examiner determine that issues remain which have not been resolved by this response, the Examiner is requested to telephone Applicant's attorney such that all issues may be resolved at an early time.

Respectfully submitted
for Applicant,

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SHOULD ANY OTHER FEE BE REQUIRED, THE PATENT AND TRADEMARK OFFICE
IS HEREBY REQUESTED TO CHARGE SUCH FEE TO OUR DEPOSIT ACCOUNT 13-
0410.

VERSION OF CLAIMS SHOWING CHANGES

1. (~~{Amended}~~TWICE AMENDED) A method for forwarding packets to a network, comprising the steps of:
providing a packet forwarding system with a memory, said packet forwarding system being connected to the network;
~~{creating a packet with local data}~~receiving an analog signal and generating local audio packets;
receiving packets at the packet forwarding system including local audio packets and storing the packets in the memory of the packet forwarding system;
attempting to forward ~~{the}~~ packets stored in the memory to the network;
establishing ~~{a}~~one or more time limit within which to forward ~~{the}~~ packets stored in the memory to the network with the time limit linked to the content of the data included in the packet;
monitoring an elapsed period of time while attempting to forward ~~{the}~~ packets stored in the memory to the network; and
canceling said attempting to forward ~~{the}~~ a packet stored in the memory to the network, ~~{and replacing the packet stored in memory with a new packet}~~ when the elapsed period of time exceeds the time limit associated with the content of the data included in the packet.
3. (AMENDED) The method of claim 1 further comprising the step of allowing transmission of the packet stored in the memory to be completed when that packet is currently being transmitted over the network.
6. (AMENDED) The method of claim 1, ~~{wherein: said}~~further comprising replacing the packet stored in memory with a new packet ~~{includes}~~including the same data as the replaced packet when it is determined to cancel the forwarding of the stored packet.
7. (AMENDED) The method of claim 1, ~~{wherein: said}~~further comprising replacing the packet stored in memory with a new packet ~~{includes}~~including different data than the replaced packet when it is determined to cancel the forwarding of the stored packet.
30. (~~{New}~~AMENDED) A method in accordance with claim 1, ~~{further comprising:}~~
~~{wherein said step of receiving packets includes receiving {another} a packet at said packet forwarding system from {another network, said} a network {and said another network having separate} collision domain that is different from the collision {domains} domain associated with the forwarding device.~~
31. (~~{New}~~AMENDED) A method for forwarding packets to a network, comprising the steps of:
providing a packet forwarding system with a memory, said packet forwarding system being connected to the network;
~~{creating a packet}~~ receiving an analog signal and generating local audio packets with local audio data;
receiving packets at the packet forwarding system including the audio packets and storing

the packets in the memory of the packet forwarding system~~;~~ ~~said creating of the packet being performed using local audio as a data portion of the packet~~;

attempting to forward the packet stored in the memory to the network;

establishing ~~a~~ one or more time limit within which to forward ~~the~~ packets stored in the memory ~~to~~ including a time limit based on the network packet containing local audio data;

monitoring an elapsed period of time while attempting to forward ~~the~~ a packet ~~stored in the memory~~ containing local audio data to the network; and

canceling said ~~attempting~~ attempt to forward the packet stored in the memory to the network~~;~~ and replacing when the packet ~~stored in memory with a new packet when~~ contains local audio data and the elapsed period of time exceeds the time limit based on the packet containing local audio data.

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